

U.S. Department of Interior
Bureau of Reclamation
Mid-Pacific Region

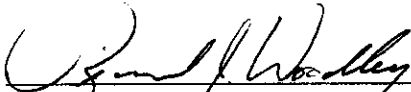
RECORD OF DECISION

**AMERICAN BASIN FISH SCREEN AND
HABITAT IMPROVEMENT PROJECT**

Sutter and Sacramento Counties, California
Final Environmental Impact Statement/
Environmental Impact Report


April 2009

Recommended:


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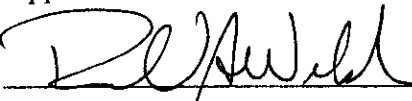
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Approved:


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Date: APR 20 2009

FOR

I. Introduction

This document constitutes the Record of Decision (ROD) of the U.S. Department of Interior, Bureau of Reclamation (Reclamation), Mid-Pacific Region regarding the preferred alternative for the American Basin Fish Screen and Habitat Improvement Project (AFSB Proposed Action). This ROD is based on the Final Environmental Impact Statement/Environmental Impact Report (EIS/EIR) dated June 2008. This document was developed in compliance with the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA).

II. Decision

Reclamation's decision is to proceed with the AFBF Proposed Action as described in the Final EIS/EIR. This alternative was identified as the environmentally preferred alternative in the Final EIS/EIR and fully satisfies the project purpose and need and meets the project objectives. The AFBF Proposed Action includes mitigation measures for environmental impacts as described below.

III. Background

The AFBF Proposed Action and the other action alternatives considered were developed to address concerns regarding the potential adverse effects to local fish species caused by existing diversion facilities owned and operated by Natomas Central Mutual Water Company (Natomas Mutual), while assuring the reliability of the water supply for beneficial uses within the Natomas Basin. At various times of the year, the lower Sacramento River and Natomas Cross Canal (NCC) are inhabited by numerous fish species at various life stages, including such state and federally-listed species as the winter-run Chinook salmon, spring-run Chinook salmon, Central Valley steelhead, green sturgeon and other at-risk species. These fish species, particularly anadromous fish (those fish that live as adults in salt water and spawn in fresh water), use the Sacramento River and NCC as part of their migration corridor (upstream for spawning adults and downstream for rearing juveniles). Many of the fish species of concern that use these rivers and streams have declined in population during the last few decades as a result of various stress factors. Entrainment caused by unscreened diversions, straying and stranding, lack of quality stream channel and riparian habitats, blockage of suitable habitat, and excessive predation are believed to be significant factors affecting the decline of many at-risk fish species. Of these, existing unscreened diversions owned and operated by Natomas Mutual contribute to entrainment, straying and stranding, and blockage of suitable habitat.

The purpose and primary objectives of the action are:

- To avoid or minimize potentially adverse effects to fish, particularly anadromous juvenile fish, due to water diversions by Natomas Mutual and where possible, other small diversions by individual landowners in the Natomas Basin.
- To ensure the reliability of Natomas Mutual's water diversion and distribution facilities for beneficial uses of its water supply within the Natomas Mutual service area.
- To maintain important habitat within the Natomas Basin created by the operation of Natomas Mutual's water distribution facilities.

The need for this action results from the following:

- There are multiple unscreened diversions on the Sacramento River and NCC used by Natomas Mutual and others that result in straying, entrainment, and stranding of migrating fish.
- There is a diversion dam at the mouth of the NCC that acts as a potential migration barrier to fish movement between the Sacramento River and eastside tributaries.

IV. Alternatives Considered

Reclamation and the California Department of Fish and Game (CDFG) developed the alternatives analyzed in the Final EIS/EIR with input from the California Department of Water Resources, National Marine Fisheries Service (NMFS), and the United States Fish and Wildlife Service (USFWS) and public scoping meetings. The alternatives, including the ABFS Proposed Action, are summarized below and described in detail in the Final EIS/EIR.

No Action Alternative

The No Action Alternative describes a projection of existing conditions to future conditions without implementation of any action alternative. It is analyzed to provide a basis for the comparison in the evaluation of the action alternatives, as required by NEPA. Under the No Action Project Alternative, the following would occur:

- The five pumping plants (two along the NCC and three along the Sacramento River) would remain in operation. The intakes associated with these pumping plants would continue to remain unscreened.

- The Bolen Ranch private intake and pump would remain unscreened.
- The existing Verona Dam and diesel pumps would continue to provide water to the two pumping plants along the NCC during periods of low flow.
- No modifications would occur to the existing distribution system.

The unscreened diversions would continue to operate under the existing conditions previously described. Continued operation of the unscreened diversions would risk potential entrainment of listed and non-listed native fishes.

Common Components of All Action Alternatives

All of the action alternatives include the following improvements to Natomas Mutual facilities:

- Removing the existing Verona Dam and diesel pumps from the NCC.
- Removing the five pumping plants (two along the NCC and three along the Sacramento River).
- Removing one privately owned pump for the Bolen Ranch property adjacent to the Sankey Diversion (nine other small unscreened pumps within the Natomas Basin, owned and operated by other landowners for irrigation purposes, are not part of the project and would remain operational).
- Constructing one or two new diversion facilities with fish screens, to replace the water supply provided by the pumping plants being removed.
- Modifying the distribution system to convey surface water supply from the new diversion locations to the points of service at the existing pumping plant outfalls (maintaining existing flow rates, levels and scheduling), including re-grading of existing canals, the construction of a new highline canal, and modifications to drainage canals.

ABFS Proposed Action (Sankey and Elkhorn Diversions)(Environmentally preferred alternative)

The ABFS Proposed Action would replace the five existing unscreened diversion facilities with two new screened diversions (Sankey and Elkhorn). The ABFS Proposed Action would be implemented in three phases. Phase I would include the construction of the 434 cfs Sankey Diversion, the Sankey Canal, Sankey Drain, and other associated improvements. Phase II includes the construction of the 210 cfs Elkhorn Diversion and re-grading the Elkhorn Main Canal. Phase III includes re-grading the Riverside Main Canal and making associated improvements to the internal conveyance system as required to route flows from the Sankey Diversion.

Phase I of the ABFS Proposed Action has independent utility and would be constructed first, subject to available funding. Phases II and III would only be constructed if additional funding were to become available. Phase II has independent utility and could be constructed prior to Phase I, though it is of lower priority to the state and federal resources agencies. Phase III does not have independent utility and would only be constructed after Phase I is completed. Phase III could be implemented prior to Phase II. Due to the uncertainty of whether Phase I construction would be followed by Phases II and III, mitigation measures have been identified for each phase of the ABFS Proposed Action.

Alternative 1 – Sankey Diversion

Under Alternative 1, the five existing unscreened diversion facilities would be replaced with one screened diversion at Sankey. The new Sankey Diversion would be a 644 cfs capacity pumping plant (at normal operating levels) equipped with a state-of-the-art fish screen system. The facility would be located on the left (east) bank of the Sacramento River, approximately 0.25 mile downstream of the confluence with the NCC. The intake facility would divert water from the Sacramento River and lift the supply into the Sankey Canal and Drain, and the Garden Highway Canal.

Alternative 2 – Prichard Diversion

Under Alternative 2, the five existing unscreened diversion facilities would be replaced with one screened diversion at Prichard. The new Prichard Diversion would be a 644 cfs capacity pumping plant (at normal operating levels) with a state-of-the-art fish screen system. The facility would be located on the east (left) bank of the Sacramento River, adjacent to and downstream of Pumping Plant No. 2. Alternative 2 differs from the Proposed Action and Alternative 1 because it does not include construction of the Sankey Drain.

V. Basis of Decision and Issues Evaluated

The decision is based on meeting the purpose and need, project objectives, Federal and State requirements, and the evaluation of environmental impacts in the EIS/EIR.

Implementation of the ABFS Proposed Action meets the project purpose and need, and the following project objectives:

- Provision of state-of-the-art positive barrier fish screens meeting the NMFS and the CDFG fish screening criteria on diversions facilities. These fish screens would minimize the potential for entrainment of resident and migratory fish species.

- Consolidation of diversion facilities to minimize fish exposure and minimize potential aquatic habitat impacts.
- Elimination of Natomas Mutual's water diversion facilities on the NCC to improve habitat and minimize the potential for straying and stranding of migrating fish from the Sacramento River.
- Elimination of a diversion dam at the mouth of the NCC, thereby removing a potential migration barrier for fish movement between the Sacramento River and east side tributaries through the NCC.
- Elimination of diesel lift pumps associated with the diversion dam and the related air quality, noise, and water quality impacts, leading to an improved overall environment for the local species.
- Removal of decommissioned facilities and restoration of aquatic and riparian habitats.
- Maintaining the reliability of Natomas Mutual's water diversion and distribution facilities, for beneficial use of its water supply within the Natomas Mutual service area.

The EIS/EIR focused the environmental review on the following areas of potential impact:

- Terrestrial Biology
- Aquatic Biology
- Hydrology and Water Quality
- Cultural Resources
- Aesthetics/Visual Quality
- Agricultural Resources
- Air Quality Geology and Soils
- Hazards and Hazardous Materials
- Land Use, Land Use Planning, and Recreation
- Noise
- Transportation and Circulation
- Energy and Depletable Resources
- Indian Trust Assets
- Environmental Justice
- Cumulative Impacts
- Construction Effects

Potentially significant environmental impacts were identified for the ABFS Proposed Action in the following resource areas: Terrestrial biology, aesthetics, and land use and planning.

The other action alternatives identified the same potentially significant impacts for the same three resource areas. The resolution of these issues, and the environmental impacts to the related resources formed the basis for the identification of the ABFS Proposed Action as the environmentally preferred alternative.

The ABFS Proposed Action is the best alternative to minimize and avoid environmental impacts while providing the flexibility to phase project construction. The ABFS Proposed Action is the environmentally preferable alternative since it limits the permanent loss of foraging habitat for Swainson's hawk (9.5 acres versus 52.2 for Alternatives 1 and 2) and the long term value of giant garter snake habitat would be enhanced by the addition of the new Sankey Canal. The installation of state of the art fish screens will prevent the entrainment of federally and state listed fish species on the Sacramento River. The ABFS Proposed Action would disturb the least amount of total acreage (130 acres) owned by both public and private entities, when compared to alternatives 1 and 2. Phased construction of the ABFS Proposed Action could allow incremental implementation of project. This could accelerate the fishery benefits of the Phase I portion of the project, if funding is initially available only for that phase.

VI. Implementing the Decision and Environmental Commitments

Reclamation and Natomas Mutual have adopted all practical means to avoid and minimized environmental harm for the ABFS Proposed Action and are committed to ensure the measures identified in the Draft EIS/EIR (DEIS/EIR) are implemented. Natomas Mutual has incorporated numerous construction measures into the project description for the ABFS Proposed Action to avoid or minimize the environmental impacts associated with the project. These measures will be included in construction specifications to ensure they are implemented during project construction. Natomas Mutual is required to report on the implementation of the construction measures on a quarterly basis. The following list pertains to the areas of impact and the corresponding page(s) in the DEIS/EIR where details on the construction measures can be found:

- Disturbance to nesting and foraging Swainson's hawk (DEIS/EIR page 2-49)
- Disturbance to giant garter snakes (DEIS/EIR pages 2-50 to 2-51)
- Disturbance to burrowing owls (DEIS/EIR pages 2-51 to 2-52)
- Loss of valley elderberry longhorn beetle habitat (DEIS/EIR page 2-52)
- Loss of riparian forest and shaded riverine aquatic habitat (DEIS/EIR page 2-52)
- Fishery impacts from in-river work (DEIS/EIR pages 2-52 to 2-55)
- Loss of mature trees (DEIS/EIR page 2-52)
- Water quality and sedimentation impacts (DEIS/EIR pages 2-55 to 2-62)

- Noise impacts (DEIS/EIR page 2-65)
- Impacts to cultural resources (DEIS/EIR pages 2-62 to 2-63)
- Aesthetic impacts (DEIS/EIR page 2-63)
- Air quality impacts (DEIS/EIR page 2-63 to 2-64)
- Disruption to traffic and circulation (DEIS/EIR page 2-65)
- Disruption to utilities services (DEIS/EIR page 2-65)
- Exposure to hazards and hazardous materials (DEIS/EIR page 2-64 to 2-65)

In addition, mitigation measures were identified in the DEIS/EIR to address the following impacts associated with the ABFS Proposed Action:

- **Disturbance to nesting and foraging Swainson's hawk**

Mitigation Measure TB-1: Minimize disturbance to nesting and foraging Swainson's hawks

Mitigate for permanent loss of foraging habitat at 1:1 ratio. Mitigate for loss of riparian forest and SRA by adopting Mitigation Measure TB-6 (see below). Mitigate for the loss of potential nest trees on the land side of the Garden Highway by adopting Mitigation Measure TB-10.

- **Disturbance to giant garter snakes**

Mitigation Measure TB-2: Disturbance to giant garter snakes

Natomas Mutual has agreed to join the Natomas Basin Habitat Conservation Plan as a signatory and has developed its own set of best management practices (BMPs) to reduce take on Covered Species, including the giant garter snake (see **Appendix F in DEIS/EIR**). In addition, construction phasing would be scheduled to provide for dewatering, clearing, grading, and earthmoving to occur during the active season (May 1 to October 1), wherever possible. Construction activities that could not be conducted within this time would be scheduled as close as possible to the active season (spring and fall) with permission from the regulatory agencies.

- **Impacts to northwestern pond turtle**

Mitigation Measure TB-3: Reduce disturbances to northwestern pond turtles

Mitigation Measure TB-2 discussed above to protect the giant garter snake would also reduce any potentially significant impacts to pond turtles.

- **Loss of valley elderberry longhorn beetle habitat**

Mitigation Measure TB-5: Reduce potential take of VELB and its habitat

Natomas Mutual would implement the following mitigation measures to compensate for VELB habitat that cannot be avoided:

- Purchase VELB credits in an USFWS approved mitigation bank to mitigate for 27 elderberry stems in riparian habitat.
- Transplant the five elderberry shrubs to an approved mitigation bank, if possible

- **Loss of riparian forest and shaded riverine aquatic habitat**

Mitigation Measure TB-6: Loss of riparian and shaded riverine aquatic habitat

Purchase the appropriate number of credits at an agency-approved mitigation bank. The USFWS, NMFS, and CDFG typically require compensation for the loss or disturbance to SRA habitat at a 3:1 ratio (i.e., three trees must be planted for each tree lost). The final number of credits to be purchased shall be determined by agency staff.

- **Impacts to resident and migratory wildlife**

Mitigation Measure TB-8: Resident and Migratory Wildlife Species

Swallow nests can be removed during the non-nesting season either by scraping them off artificial structures or by washing them down. The nests must be removed before egg-laying occurs to avoid damaging active nests. Nest removal shall continue from March 1 until September 1, or until construction activity within 100 feet of affected structures is completed, whichever comes first. The Bennett Pumping Plant shall not be dismantled during the nesting season unless all nests have been removed. Deterrent measures to prevent the reestablishment of nests on this structure shall be taken if the facility is not dismantled prior to the swallows' return. Any clearing of potential nesting habitat (e.g., riparian forest) would occur outside of the nesting season, to the extent feasible.

- **Loss of wetlands**

Mitigation Measure TB-9: Loss of wetlands

New canals and ditches/drains that would be constructed as part of the ABFS Proposed Action would mitigate for the loss and/or disturbance to existing canals and ditches. The new aquatic habitat that would be created during Phase I has been designed to include features that are beneficial to the giant garter snake, such as a

shallow flooded bench and the addition of hibernacula along the banks of the new Sankey Canal, which would offset the temporary disturbances to existing aquatic habitat while construction is underway. With respect to other seasonal wetlands that maybe impacted during Phases II or III, Natomas Mutual will purchase credits at an approved mitigation bank. However, prior to purchasing credits, Natomas Mutual proposes to use the excess acreage of newly-created canal (aquatic) habitat as mitigation for the degraded seasonal wetlands and only purchase credits if there is not sufficient created canal habitat to assure no net loss. Given the nature of the degraded seasonal wetlands and the enhanced function of the created canals this is expected to provide adequate mitigation.

- **Loss of mature trees**

Mitigation Measure TB-10: Loss of mature trees

Before construction, Natomas Mutual will hire a qualified biologist/arborist, who in conjunction with the project engineer shall determine the number and size of protected oak trees in Sacramento County that would be impacted by the ABFS Proposed Action. The biologist/arborist shall determine the required mitigation, based on the Sacramento County Oak Tree Preservation Ordinance, in concert with CDFG requirements. The replacement trees shall be planted within the Natomas Mutual service area, within a similar habitat, if possible. Mitigation for the loss of mature trees may be conducted in conjunction with Sacramento Area Flood Control Agency and/or The Natomas Basin Conservancy.

- **Impacts to Cultural Site CA-SAC-485/H**

Mitigation Measure CR-2: Impacts to Site CASAC-485/H

Avoid disturbance to significant intact portions of site CA-SAC-485/H and conduct resource documentation and data recovery, if necessary, as determined by Reclamation in consultation with State Historic Preservation Office and other consulting parties.

- **New source of substantial light or glare due to construction**

Mitigation Measure AES-3: New source of substantial light or glare due to construction that would adversely affect day or nighttime views in the area
Natomas Mutual will ensure that any exterior lighting at facilities and during

construction activities shall be located and directed so that it is concealed to the extent practicable when viewed from local roads, nearby communities, and any recreation areas.

- **New source of light or glare due to security lighting**

Mitigation Measure AES-4: New source of substantial light or glare from security lighting that would adversely affect day or nighttime views in the area

Natomas Mutual will ensure that all lighting constructed and used for the ABFS Proposed Action shall meet the following standards:

- Any exterior lighting at facilities shall be located and directed so that it is concealed to the extent practicable when viewed from local roads, nearby communities, and any recreation areas.
- Any security lighting provided shall include a wrap-around shroud to prevent fugitive light and glare.
- In order to minimize light trespass on abutting properties and to reduce potential effects to night-active wildlife in areas retained in open space, illumination measured at the nearest property line of the subject parcels shall not exceed the moon's potential ambient illumination of one-tenth (0.1) of a foot-candle, measured on a vertical plane along the property line.

- **Land use compatibility with existing or planned uses**

Mitigation Measure LU-3: Land use compatibility with existing uses
Implement Mitigation Measures AES-3 and AES-4

The State of California requires preparation of a Mitigation Monitoring and Reporting Plan for all CEQA required mitigation measures to ensure the implementation of the adopted mitigation measures. The MMRP for the ABFS Proposed Action was included as Appendix H of the DEIS/EIR, has been approved by the State, and will be implemented by Natomas Mutual with oversight by the CDFG as the CEQA Lead Agency.

Reclamation has completed consultations pursuant to the federal Endangered Species Act (ESA) with USFWS and NMFS. Non-jeopardy opinions were received from both agencies. Reclamation will implement those reasonable and prudent measures presented in the USFWS and NMFS biological opinions, which also include commitments identified in the Action Specific Implementation Plan (ASIP), insofar as they address actions to be taken by Reclamation. Reclamation will notify the USFWS and NMFS if any of the Conservation

Recommendations presented in the biological opinions are implemented. The biological opinions received from USFWS and NMFS are summarized below.

Biological Opinion Received from USFWS

USFWS issued its biological opinion (81420-2008-F-1129-1) on March 9, 2009, covering the ABFS Proposed Action, as presented in the ASIP. The biological opinion addresses effects of the Proposed Action on the threatened valley elderberry longhorn beetle, threatened giant garter snake and the threatened delta smelt, in accordance with Section 7 of the ESA. Reclamation will implement the reasonable and prudent measures in the biological opinion issued by USFWS to avoid or minimize effects on the valley elderberry longhorn beetle, the giant garter snake and the delta smelt.

Biological Opinion Received from NMFS

NMFS issued its biological opinion (2008/01096: MTM) on December 29, 2008, covering the ABFS Proposed Action, as presented in the ASIP. The biological opinion addresses effects of the Proposed Action on the federally listed endangered Sacramento River winter-run Chinook salmon, threatened Central Valley spring-run Chinook salmon, threatened Central Valley steelhead, threatened southern Distinct Population Segment (DPS) of North American green sturgeon and designated critical habitat for Central Valley spring-run chinook salmon and Central Valley steelhead, in accordance with Section 7 of the ESA. As required by the biological opinion, Reclamation will conduct thorough monitoring and report to NMFS on the efficacy of the conservation measures and any documented take that results from the ABFS Proposed Action.

National Historic Preservation Act

Reclamation consulted with the State Office of Historic Preservation regarding the eligibility of indentified properties to qualify for the inclusion on the National Register of Historic Places. The conclusion was that the ABFS Proposed Action would not create adverse effects on the historic properties. A concurrence letter from the State Historic Preservation Office was received on December 22, 2003.

Army Corp of Engineers, California Regional Water Quality Board

Natomas Mutual Section 404 permit from the Army Corp of Engineers (ACOE) is contingent upon the finalization of this ROD. The application materials for the California Regional Water Quality Board Section 401 Water Quality Certification permit have been filed and the permit is expected early April 2009.

VII. Comments on the Final EIS/EIR

To provide the public with opportunities to submit verbal and written comments on the Draft EIS/EIR issued in February, 2008, a public hearing was held at the Reclamation District No. 1000 office in Sacramento, California on March 19, 2008. No verbal or written comments were received at this meeting. The public comment period on the DEIS/EIR closed on April 16, 2008 for the purposes of CEQA, and May 2, 2008 for the purposes of NEPA. Written comments were received from one federal and three state agencies. None of the comments received on the DEIS/EIR required any changes to the project description, analysis of impacts, impact conclusions, or mitigation measures. Therefore, the DEIS/EIR, as originally published, was not modified, and was incorporated by reference into the Final EIS/EIR issued on June 10, 2008. Reclamation did not receive comments after the Final EIS/EIR was made available to the public on July 28, 2008.